

8. Consultation

The Regional Haze Rule requires consultation between states and Federal Land Managers during preparation of the Plan. Consultation with upwind and downwind states is important for mutual agreement on actions to support the respective Reasonable Progress Goals (RPGs) in each state. The Federal Land Managers, as caretakers of the Class 1 Areas, have a key role in preparation and implementation of the Plan. Consultation with Tribes is necessary when activities within state or Tribal lands cause or contribute to visibility impairment in respective Class 1 Areas.

8.1 Tribal Consultation

No Tribes requested input from California in development of their Tribal Implementation Plans. There are no tribal lands with Class 1 Area status in California. As a courtesy, California provided the WRAP coordinator for Tribes a written request to distribute an announcement of the release of the draft Plan for review.

8.2 Interstate Consultation

California has worked cooperatively since 1991 with other western states to address regional haze, first through the Grand Canyon Visibility Transport Commission (GCVTC) and then through the WRAP. Preparation of this initial Plan is the result of continuous consultation with fourteen other western states through regular meetings of the WRAP Working Groups and Forums, via conference calls, face-to-face meetings, and workshops. This coordination resulted in resolution of all technical tasks and policy decisions related to monitoring, emissions, fire tracking, BART, source attribution, modeling, and control measure issues as each Regional Haze Rule task was addressed. As a result of this extensive coordination, this Plan reflects California's element of a regionally consistent approach to addressing visibility impairment in the West.

Extensive documentation of all WRAP meetings and work products are provided on the WRAP website at <http://wrapair.org>. For specific details about meetings and topics of discussion, the various Forums and Work Groups web pages are found at <http://wrapair.org/commforum.html>.

In developing the RPGs for each Class 1 Area, each state must consult with those states which may reasonably be anticipated to cause or contribute to visibility impairment in a mandatory Class 1 Area. California used baseline period visibility data from the IMPROVE monitors along with the WRAP baseline modeling results to estimate California's emissions impact on neighboring states' Class 1 Areas (see Figure 8.1).

Figure 8.1 California, Oregon, Nevada, and Arizona Class 1 Areas



In the charts below, the first column shows the contribution of nitrates and sulfates to light extinction at these Class 1 Areas calculated from the IMPROVE monitoring data *measured* during the baseline period to provide perspective on the role of nitrates and sulfates to overall extinction. The second column shows California's contribution to particle mass calculated from the *modeled* concentrations of nitrate and sulfate for the baseline years. Particle light extinction calculated from actual monitoring data is somewhat different than relative species contributions derived from modeling due the model's ability to recreate each day. However, independently, they do show two things: (1) the role of nitrates and sulfates in driving light extinction at the Class 1 Area, and (2) the probable share of California emissions contributing to the pollutant species.

Table 8.1 Nitrate Contribution to Haze in Baseline Years

State and Class 1 Area	2000-2004 Average Annual Nitrate Share of Particle Light Extinction (measured values)		2000-2004 California's Average Annual Share of Nitrate Concentration (based on modeling)	
	Worst Days	Best Days	Worst Days	Best Days
Nevada				
Jarbridge Wilderness	4%	4%	8%	17%
Oregon				
Kalmiopsis Wilderness Area	9%	2%	13%	37%
Crater Lake National Park	7%	3%	20%	53%
Arizona				
Sycamore Canyon Wilderness Area	5%	4%	6%	23%
Grand Canyon National Park	9%	5%	34%	10%

When modeled, California NO_x emissions contribute up to 34 percent of the nitrate concentrations at some neighboring states on worst days. As shown in Table 8.1, however, nitrate contributes less than 10 percent of the light extinction at the nearest Class 1 Areas in neighboring states. Hence, only a small portion of out-of-State visibility degradation is due to nitrate formed from California emissions. By 2018, NO_x emissions from California are expected to decrease by more than 40 percent due to emission reductions from mobile sources in California. This will significantly reduce California's impact to the out-of-State Class 1 Areas.

Table 8.2 Sulfate Contribution to Haze in Baseline Years

State and Class 1 Area	2000-2004 Average Annual Share of Particle Light Extinction (based on measurements)		2000-2004 California's Average Annual Share of Sulfate Concentration (based on modeling)	
	Worst Days	Best Days	Worst Days	Best Days
Nevada				
Jarbridge Wilderness	16%	18%	5%	3%
Oregon				
Kalmiopsis Wilderness	29%	7%	1%	7%
Crater Lake National Park	19%	11%	5%	19%
Arizona				
Sycamore Canyon Wilderness	13%	10%	8%	3%
Grand Canyon National Park	21%	18%	8%	1%

As shown in Table 8.2, sulfate contributes less than 30 percent of the light extinction at the nearest Class 1 Areas in neighboring states. In the baseline years, modeling shows that California SO_x emissions contribute less than 10 percent of the total concentration of sulfates at the nearest out-of-State Class 1 Areas on worst days. Thus, similar to nitrate, only a small portion of visibility degradation from sulfates are attributed to California emissions. By 2018, total SO_x emissions from California are not expected to change, despite current forecasts of a 30 percent population increase in California. Considerable reductions in mobile source emissions and early reductions in the SO_x content of fuels statewide will offset a small amount of possible growth in other sectors. In the mid-course review, California plans to evaluate changes in the SO_x emissions inventory and the subsequent impact on sulfates measured at the monitors.

Due to the topography and prevailing weather patterns, neighboring states do not significantly impact California very frequently. However, when they do, regional modeling of current controls shows that reductions to be implemented by 2018 in other states do help improve visibility at some California Class 1 Areas. California has determined that these controls are adequate for making reasonable progress in improving visibility in California. Preliminary visibility impact modeling for BART-eligible sources indicate that certain stationary sources in Arizona, Nevada, Oregon, and Washington may cause or contribute to visibility impairment in some California Class 1 Areas, on some days. The modeling reflects worst case emissions under all meteorological patterns. Whether any further reductions of emissions from these sources will show a beneficial impact on the worst days deciview level at any California Class 1 Area will not be known until final regional modeling is performed after this Plan submission. Therefore, any adjustments to California's RPGs to reflect benefits from BART will be made during the mid-course review.

In addition to ongoing interactions through the WRAP, California also consulted via telephone with our neighboring states, Oregon, Arizona, and Nevada, as well as Colorado, to discuss the impact of California emissions. In addition, California sent a written announcement to the WRAP primary contact in each of the WRAP states advising them of the availability of the draft Plan for comment, in advance of the public ARB hearing. Continuous consultation with all of the other fourteen western states of the WRAP in setting RPGs did not result in any concerns that have not been resolved.

8.3 Federal Consultation

Early in the Plan development process, California provided contacts at the ARB to the Federal Land Managers as required. Consultation with the Federal Land Managers on Plan development began in November 2006, with an in-person Regional Haze Teach-In at ARB headquarters that included State and regional representatives of the U.S. Forest Service (USFS), the National Park Service (NPS), the Bureau of Land Management (BLM), the U.S. Fish and Wildlife Service (FWS), the U.S. EPA and interested air districts. At the meeting, California's proposed 2018 Progress Strategy and RPGs were discussed.

After the November 2006 face-to-face meeting, an ad hoc ARB/Federal Land Managers Regional Haze Steering Committee (Steering Committee), which also included U.S. EPA Region 9 representatives, was formed and conducted monthly conference calls. Regional representatives of federal land management agencies were invited to participate to voice out-of-State issues. During these calls, ARB reviewed progress on the Plan tasks and requirements, and solicited input from the Federal Land Managers on updating information about Class 1 Areas and other concerns relating to visibility and the causes of regional haze. All proposed RPGs were discussed during these calls.

Some of the concerns raised by the Federal Land Managers during the Steering Committee calls were incorporated in the technical tasks associated with Plan preparation and others addressed long-term actions. The input contributed to the descriptions of "controllable" and "uncontrollable" anthropogenic and natural sources. Federal Land Managers' knowledge of local sources did not indicate any existing stationary sources with specific reasonably attributable visibility impacts (RAVI), but did help identify pending growth in both stationary and area sources. These included specific stationary source locales with pending land use or energy siting applications and regional growth trends.

All of these growth nodes will occur in areas which are currently nonattainment for national and State air quality standards. The air districts are already charged with continuous improvement of their stationary and area source rules to achieve reductions to offset growth. Changing emissions will be updated in the regional haze inventory when they occur and will be included in the mid-course review

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assessments. Also, the USFS expressed their longstanding concern about ozone damage to forest health, and agreed that continued reductions in ozone precursors throughout the State would also be beneficial in reducing haze species formation.

As a result of input from the Federal Land Managers, two items will be continued in detail during the mid-course review because further research is required.

- The State is concerned that the U.S. EPA default for Natural Conditions in California may not adequately incorporate the impacts of wildfire smoke as well as biogenic emissions, thereby underestimating the deciview value of Natural Conditions. The Federal Land Managers are assisting in tracking the temporal and regional impacts of wildfire smoke which is necessary for development of an equitable attribution of this natural, uncontrollable source. If there is consensus, after collecting more data in the future, the "Natural Conditions" values at some Class 1 Areas in California may be adjusted upwards.
- The Federal Land Managers also requested that the Plan point to the possibility of coordinated administration of the Prevention of Significant Deterioration Program (PSD) with the Regional Haze Program. The U.S. EPA representatives participating in the discussion agreed that improvements for tracking impact increments have been a national concern. In California, local air districts and U.S. EPA Region 9 are currently responsible for PSD reviews of new sources. The ARB recommends that this item be addressed regularly through existing committees and reported on in the mid-course review.

The draft Plan has been released for review by the Federal Land Managers at least 60 days before the Board Hearing with a written request for comments to the reviewers specified by the three Federal Land Management agencies which manage the Class 1 Areas in California: the U.S. Forest Service, the National Park Service, and the Bureau of Land Management. The Steering Committee also supported the plans for a public webcast workshop in Sacramento on the Plan on December 15, 2008, over one month prior to the public hearing. A webcast workshop facilitates broad participation by Federal Land Manager field office staff in remote locations via internet. Webcast workshops also enable "live" question and answer format for all participating in person and via the web. Both ARB staff who prepared the Plan, as well as the Federal Land Manager representatives and the public attending the workshop/webcast, are able to comment and respond in a non-hearing setting. The official written comments of the Federal Land Managers, as a result of the 60-day advance review, will be placed in Appendix F when received.

8.4 Required Continued Consultation with Federal Land Managers

California will continue to coordinate and consult with the Federal Land Managers during the development of future progress reports and Plan revisions, as well as during the implementation of programs having the potential to contribute to visibility impairment in the mandatory Class 1 Areas via three existing venues: the Interagency Air and Smoke Council, the Air and Land Managers Group, and the WRAP.

Prior to Plan development, the Federal Land Management agencies in California, California Department of Forestry and Fire Protection (CDF), ARB, and local air districts met routinely in technical and policy forums. Since the 1990's, technical staff has met quarterly as the chartered Interagency Air and Smoke Council (IASC) to discuss measurement, monitoring, regulatory, planning, and outreach issues, among other things related to smoke management.

Beginning in 2002, upper management representatives from the same agencies began meeting on a regular basis as the Air and Land Managers Group (ALM) to resolve policy issues relating to smoke management. The Steering Committee formed as an ad hoc subset of the ALM specifically to address the Plan development. After Plan submittal, the ALM will continue to keep regional haze as a regular update item on their meeting agendas. In addition, the ARB will continue to foster coordination and communication with neighboring states to discuss issues related to inter-state smoke impacts.

The WRAP has agreed to host an annual convocation on regional haze, as a Board meeting or as a separate workshop, to discuss regional haze issues and foster continued communication between the states, Tribes, and the Federal Land Managers.

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